ACCESSION NR: AP4018160 S/0191/64/000/003/0017/0019

AUTHOR: Medvedeva, P.A.; Gavurina, R.K.; Kevesh, A.A.; Voytovich, V.K.

TITLE: Cold curing of epoxy-polyester resin

SOURCE: Plasticheskiye massy*, no. 3, 1964, 17-19

TOPIC TAGS: epoxy polyester resin, curing, hardening, curing agent, inflammable fiberglas , self extinguishing fiberglass, initiator, accelerator, cold curing

ABSTRACT: The process of cold curing (at 18-22C) epoxy-polyester resin (EPR) (a mixture of epoxy ED-5 or ED-6 resin, styrene, and unsaturated polyester resins) was studied. The process is feasible with 2 types of mixed three-component curing agents: (1) organic peroxide + aromatic tertiary amine + organic dicarboxylic acid anhydride, or (2) organic hydroperoxide + organic salt of a variable valence metal + organic dicarboxylic acid anhydride. By varying the ratio of the initiator and accelerator components of the hardening agent, the curing time can be varied from 2-3 hours or more to 8 minutes. Inflammable fiberglas samples were prepared using

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ASTT(b)S-8/3 glass cloth with an EPR (ED-5 + polyester made from ethylene glycol, maleic, and phthalic anhydrides and adipic acid) and benzoyl peroxide, dimethylaniline, and maleic or methyltetrahydrophthalic anhydrides. Heat treatment at 125C for 5 hours and subsequently at 160C for 5 hours gave fiberglas with high mechanical strength, especially high static bending (4500-4800 kgs/cm^2). Self-extinguishing fiberglas samples prepared similarly from chlorine-containing polyesters also had fairly high mechanical strength (static bending 3800-4400 kgf/cm^2). "S. Ya. Lapteva participated in the experimental work." Orig. art. has: 5 tables

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: MA NO REF SOV: 005 OTHER: 000

Card 2/2

ACCESSION NR: AP4042180 S/0190/64/006/007/1161/1166

AUTHOR: Lebedev, V. S., Gavurina, R. K.

TITLE: Synthesis and properties of the amphoteric copolymer of fumaric acid and 2-methyl-5-vinylpyridine

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 7, 1964, 1161-1166

TOPIC TAGS: copolymer, fumaric acid, amphoteric copolymer, 2-methyl-5-vinylpyridine, electrodialysis, potentiometric titration, electrostatic charge, polymer solubility, polymer viscosi

ABSTRACT: A new amphoteric copolymer of fumaric acid and 2-methyl-5-vinylpyridine (1:4.2) was produced by polymerization of the monomers in methanol solution, initiated by azoisobutyrodinitrile, and conversion of the initial product to the hydrochloride. The "pure" copolymer, which contains no external salt (HCl), was obtained by high-voltage electrodialysis from the hydrochloride. The copolymer is insoluble in most organic solvents, but soluble in aqueous-alcoholic and aqueous-pyridine mixtures. The potentiometric titration curves for the hydrochloride of the copolymer in water, ethanol and in a 0.4 M KCl solution show the functional relationship between the degree of dissociation and the pH. The concentration of hydrogen ions is determined by the ratio of the three dissociation constants corresponding to the dissociation of pyridine and the two levels of dissociation of the carboxyl groups. The titration curve of the hydrochloride of the copolymer coincides almost completely with that of the copolymer obtained by

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R000514520001-3"

ACCESSION NR: AP4042180

electrodialysis. This agrees with the fact that on the acid side of the titration curve, only the pyridine ions are titrated, and on the alkali side the carboxyl groups, while at the isoelectric point, the concentration of the dipolar ions is very low. Because of the weak alkalinity of the pyridine groups on the acid side, there is no break in the titration curve, whereas there is a pronounced break on the alkaline side and this break corresponds exactly to the stoichiometric equivalent of the carboxyl groups. Viscosimetric studies showed that dilution causes the viscosity to increase considerably as a result of the branching of polymer chains, because the counter-ions diffuse from the polyion and the effective charge and electrostatic repulsion increase. The effect of electrostatic charge on the variation in shape of the copolymer macromolecules and hence on viscosity is plotted, as is the relationship between the viscosity of the copolymer and the degree of ionization of acid and basic groups in water and in 85% ethyl alcohol. The minimal viscosity in 85% alcohol is 0.135 (for a polymer concentration of 0.879 g/100 ml). Orig. art. has: 4 figures, 1 table and 1 formula.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Engineering Institute)

SUBMITTED: 16Jun62 ENCL: 00

SUB CODE: OC NO REF SOV: 002 OTHER: 013

Card 2/2

ACCESSION NR: AP4042182 S/0190/64/006/007/1174/1180

AUTHOR: Lebedev, V. S., Loginova, N. N., Gavurina, R. K.

TITLE: Effect of the cis- and trans-configurations of ethylene-1.2-dicarboxylic acid on the properties of their copolymers with 2-methyl-5-vinylpyridine

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 7, 1964, 1174-1180

TOPIC TAGS: dicarboxylic acid, ethylene-1.2-dicarboxylic acid, cis trans isomerism, copolymer, 2-methyl-5-vinylpyridine, maleic acid, fumaric acid, electrodialysis, polymer solubility, potentiometric titration

ABSTRACT: The viscosimetric and titration behavior of the copolymers of two stereoisomeric acids (maleic and fumaric) with 2-methyl-5-vinylpyridine were compared in order to clarify the effect of the spatial orientation of the carboxyl groups. The copolymer of maleic acid and methyl-5-vinylpyridine was obtained as the hydrochloride, and a "pure" copolymer was obtained from the latter by high-voltage electrodialysis. The analytical data agree well with the calculated values for a 1:3.3 ratio of monomers. This shows a good agreement between the composition of the hydrochloride and the "pure" copolymer. The copolymer

ACCESSION NR: AP4042182

with maleic acid had a much greater solubility in organic solvents than that with fumaric acid. The content of carboxyl groups in the copolymer of maleic acid or fumaric acid with 2-methyl-5-vinylpyridine was determined under different conditions of titration. Regardless of the varying titration conditions, the copolymer of maleic acid was found to have half the expected number of carboxyl groups calculated by other analytical data. The viscosity of the copolymer of maleic acid and methyl-vinylpyridine was plotted against the degree of neutralization of the acid and basic groups in aqueous solution, showing that the copolymer of maleic acid has the properties of a dibasic acid, while the copolymer of fumaric acid shows a behavior similar to that of polymonobasic acids. This behavior is apparently due to the different steric configurations of the carboxyl groups, as in the case of the monomeric stereoisomeric acids. In the copolymer with maleic acid, because of the small distance between the adjacent carboxyl groups, they affect one another considerably and react with themselves and with other units of the polymer molecules more intensively than in the case of the copolymer with fumaric acid. Orig. art. has: 4 figures, 2 tables and 1 structural formula.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Engineering Institute)

ACCESSION NR: AP4042182

SUBMITTED: 24Dec62 ENCL: 00

SUB CODE: OC NO REF SOV: 001 OTHER: 010

3/3
Card

LEBEDEV, V.S.; GAVURINA, R.K.

Potentiometric titration of copolymers of maleic and fumaric acids with 2-methylvinylpyridine. Vysokom.soed. 6 no.8:1353-1358 Ag '64.
(MIRA 17:10)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

L 35346-66 EWT(m) DS/RM

ACC NR: AP6012717 (A) SOURCE CODE: UR/0190/66/008/004/0713/0717

AUTHOR: Vasil'yeva, Ye. M.; Gavurina, R. K.

ORG: Leningrad Institute of Technology im. Lensovet (Leningradskiy tekhnologicheskiy institut)

TITLE: Amphoteric ion exchange resins from copolymers of 2-methyl-5-vinyl-pyridine and from stereoisomeric ethylene-1,2-dicarboxylic acids

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 4, 1966, 713-717

TOPIC TAGS: ion exchange resin, copolymer, fumaric acid, maleic acid, cation, polymerization

ABSTRACT: A study has been made of amphoteric ion-exchange resins from copolymers of 2-methyl-5-vinylpyridine and stereoisomeric dicarboxylic acids: fumaric and maleic acids. Comparison of two types of resins (fumaric and maleic acids) indicated that they differ considerably in polymerization behavior of comonomers, in potentiometric properties, in swelling capacity in an aqueous solution, and in sorption of cations. Orig. art. has: 2 figures and 3 tables. [NT]

SUB CODE: 11, 07/ SUBM DATE: 29Apr65/ ORIG REF: 005/ OTH REF: 006

Card 1/1 UDC: 678.13+678.744+678.746

ACC NR: AP6002210 (A) SOURCE CODE: UR/0153/65/008/005/0834/0839

AUTHOR: Gromov, V. V.; Gavurina, R. K.

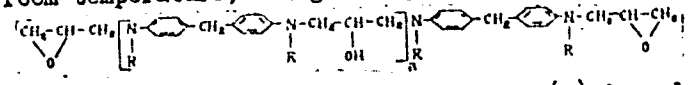
ORG: Department of Plastic Technology, Leningrad Technological Institute im. Lensovet (Kafedra tekhnologii plastmass Leningradskogo tekhnologicheskogo instituta)

TITLE: Epoxy resins from N,N'-dialkyl substituted derivatives of 4,4'-diamino-diphenylmethane

SOURCE: IVUZ. Khimiya i khimicheskaya tekhnologiya, v. 8, no. 5, 1965, 834-839

TOPIC TAGS: epoxy plastic, nitrogen compound, organic synthetic process, resin, diphenyl compound, methane, chlorohydrin

ABSTRACT: Using N,N'-dimethyl-, N,N'-diethyl-, and N,N'-diisopropyl-4,4'-diamino-diphenylmethane and epichlorohydrin as the starting materials, the epoxy resins containing nitrogen were synthesized, while studying the conditions of each stage of the synthesis. The condensation reaction of N,N'-dialkyldiamines with epichlorohydrin was performed in two stages (1. formation of chlorohydrin, 2. dehydrochlorination by alkali at room temperature) and gave a product of the structure:



The average magnitude of the degree of condensation (n) depended on the ratio of the

UDC: 678-65

Card 1/2

L 39477-66

ACC NR: AF6002210

starting materials. At constant reaction conditions, the concentration of epoxy groups in the final products decreased with the increasing length of the alkyl substituents. In the first stage of the synthesis, the nature of the solvent affected the rate of the reaction. At 75-95C the rate decreased with the solvents: isoamyl alcohol > isopropyl alcohol $\gg$ benzene + isopropyl alcohol $\ggg$ benzene. Use of a benzene-isopropyl-alcohol mixture as the solvent in the second stage of the reaction made possible a replacement of a 44% solution by the solid NaOH. The dehydrochlorination reaction was practically accomplished within 3-4 hours. Curing with maleic anhydride (5 hours at 60C) or 4,4'-diaminodiphenylmethane gave resins of approximately similar properties. Experimental procedure: one mole of diamine dissolved in 300 ml C_6H_6 was heated for 15 minutes at 85C and then a known amount of epichlorohydrin was added slowly (15 minutes) by drops to the solution; this was mixed at 85C for 15 hours. The clear light-brown solution of dichlorohydrin formed was cooled to 20C, 2.4 M 44% NaOH solution was added gradually for each mole of the diamine, and this was mixed for 15 hours at 20-25C. The NaCl formed was removed and the reaction mixture was washed with H_2O to a negative Cl^- reaction and a weak alkalinity of the wash water (pH 7.8 - 8.5). After distillation of the solvent (C_6H_6), epichlorohydrin, and residues of H_2O, the resin formed was dried in a vacuum at 36 - 40C. Using C_6H_6 + isopropyl alcohol mixture as the solvent, the reaction was performed analogously with a reduction of the time of the dehydrochlorination with solid NaOH to 5 - 6 hours. Orig. art. has: 3 figs., 1 formula and 5 tables.

SUB CODE: 20,07/ SUBM DATE: 18Jul64/ ORIG REF: 010/ OTH REF: 010

Card 2/2 MLP

L 10073-67 EWT(m)/EWP(j) RS/RM

ACC NR: AP6029927 (A) SOURCE CODE: UR/0413/66/000/015/0090/0090

INVENTORS: Vasil'yeva, Ye. M.; Gavurina, R. K.; Kolomeytsev, O. P.

ORG: none

TITLE: Method for obtaining a chelate-forming ion-exchange resin. Class 39, No. 182451 [announced by Technological Institute im. Lensovet (Tekhnologicheskiy institut)]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 90

TOPIC TAGS: ion exchange resin, pyridine, chelation, resin

ABSTRACT: This Author Certificate presents a method for obtaining a chelate-forming ion-exchange resin from aromatic ethylene derivatives, dihydrazide, 1,2-ethylenedicarboxylic acid, and divinyl benzene. To improve the complex-forming properties of the pyridine groups of the resin, 2-methyl-5-vinylpyridine is used as the aromatic ethylene derivative.

SUB CODE: 07,11/ SUBM DATE: 09Apr65

Card 1/1 UDC: 661.183.123:678.766.5-139

GAVURINA, Ts.K.

KREPS, Ye.M.,; VERZHBINSKAYA, N.A.,; CHERNYKAYEVA, Ye.Yu.,;CHIRKOVSKAYA, Ye.V.,; GAVURINA, TS.K.

Adaptation of animals to chronic hypoxia; effect of adaptation to chronic hypoxia on the ceiling and on the rate of gas exchange with lowered oxygen content. Fiziol. zh. SSSR 42 no.1:69-77 Ja 56. (MLRA 9:5)

1. Laboratoriya sravnitel'noy biokhimii Instituta fiziologii imeni I.P. Pavlova AN SSSR, Leningrad.
(ANOXIA, experimental,
prep. of animals (Rus))

GAVURINA TS. K.

KREPS, Ye.M.,; VERZHBINSKAYA, N.A.,; CHENYKAYEVA, Ye.Yu.,; CHIRKOVSKAYA, Ye.V.,; GAVURINA, Ts.K.

Preparation of animals for chronic hypoxia; effect of chronic hypoxia on contents of hemoglobin, myoglobin, cytochrome and on activity of cytochrome oxidase and carbonic anhydrase in the blood and tissue. Fiziol. zhur. 42 no.2:149-158 F '56. (MLRA 9:6)

1. Laboratoriya sravnitel'noy biokhimii Instituta fiziologii imeni I.P. Pavlova AN SSSR, Leningrad.

(ANOXIA, effects,
on cytochrome, cytochrome oxidase, carbonic anhydrase, hemoglobin & myoglobin metab. (Rus))
(HEMOGLOBIN,
myoglobin & hemoglobin in exper. anoxia (Rus))
(CYTOCHROMES,
in exper. anoxia (Rus))
(OXIDASES,
cytochrome in exper. anoxia (Rus))
(HYDRASES,
carbonic anhydrase in exper. anoxia (Rus))

GAVURINA, Ts. K.

Adaptation of animals to chronic hypoxia. E. M. Kreps, N. A. Verzhbinskaya, E. Yu. Chernykaeva, E. V. Chirkovskaya, and Ts. K. Gavurina (I. P. Pavlov Physiol. Inst., Leningrad). *Fiziol. Zhur. S.S.S.R.* 42, 456–63(1956).—Rats after 4 generations under reduced O supply (10.5% O_2) show signs of gradual change of brain metabolism. The changes are difficult to detect owing to their small magnitude. For example, adenosinetriphosphate and creatine phosphate breakdown occurs more readily. Anaerobic glycolysis becomes less active and the cytochrome system tends to decline in activity. The general trend is to degradation and weakening of the activity of the organism. G. M. Kosolapoff

AGEYEVA, A.P.; AKSENOVA-CHERKASOVA, A.S., aspiranka; VELIKANOV, L.N., bibliotekar'; GAVVA, F.M.; GIRENKO, P.D., Geroy Sots. truda; GUBANOV, M.M., pensioner; GUS'KOVA, T.K., nauchnyy sotr.; DAVYDOV, A.G., prepodavatel'; DANILEVSKIY, V.V., prof., dvazhdy laureat Stalinskoy premii; DOVGOPOL, V.I., laureat Stalinskoy premii; YELOKHIN, M.F.; YERMAKOV, A.D.; IVANOV, V.G., prepodavatel'; KOVALEVICH, V.K.; KOVALEVSKAYA, Ye.S., zhurnalistka; PANKRATOV, A.G.; POPOVA, F.M.; URYASHOV, A.V.; FEDORIN, I.M., kand. ist. nauk; FILIPPOV, F.R.; CHUMAKOV, N.P.; SHEPTAYEV, K.T., zhurnalist; VAS'KOVSKIY, O.A., kand. ist. nauk, retsenzent; KULAGINA, G.A., kand. ist. nauk, retsenzent; GORCHAKOVSKIY, P.L., prof., doktor biol. nauk, retsenzent; NAKHMUTOVA, V., red.; SAKNYN', Yu., tekhn. red.

[Nizhniy Tagil]Nizhnii Tagil. Sverdlovsk, Sverdlovskoe knizhnoe izd-vo, 1961. 294 p. (MIRA 16:1)

1. Nizhne-Tagil'skiy krayevedcheskiy muzey (for Ageyeva, Gus'kova). 2. Zaveduyushchiy gorodskim otdelom narodnogo zdravookhraneniya, Nizhniy Tagil (for Velikanov). 3. Zaveduyushchiy gorodskim sel'skokhozyaystvennym otdelom goroda Nizhniy Tagil (for Gavva). 4. Nachal'nik upravleniya stroitel'stvom Sverdlovskogo sovnarkhoza (for Girenko). 5. Deystvitel'nyy chlen Akademii nauk Ukr. SSR, Leningradskiy politekhnicheskiy institut (for Danilevskiy).

(Continued on next card)

CHILINGARYAN, A.A.; GAVVA, Ye.G.

Composition of blood in connection with the age and growth of young cattle. Izv.AN Arm.SSR,Biol.i sel'khoz.nauki. 4 no.10: 885-900 '51. (MLRA 9:8)

1. Institut zhivotnovodstva Ministerstva sel'skogo khozyaystva Armyanskoy SSR.
(Blood) (Cattle)

CHILINGARYAN, A.A.; GAVVA, Ye.G.

Increasing the fat content of milk by feeding whole milk to heifers. Izv.AN Arm.SSR.Biol.nauki 12 no.3:57-66 Mr '59. (MIRA 12:9)

1. Institut zhivotnovodstva i veterinarii Ministerstva sel'skogo khozyaystva ArmSSR.
(HEIFERS--FEEDING AND FEEDING STUFFS)
(BUTTERFAT)

GAVVO, Yu., inzh.-mekhanik

Measures to increase the reliability of D.A.U. systems. Rech. transp. 21 no.9:30 S '62. (MIRA 15:9)

1. Gruppa flota Sudoremontnogo zavoda im. Lenina.
(Marine engineering)

GAVYALIS, V. P. Cand Med Sci — (diss) "Stomach Cancer, the Immediate and Remote Results of Surgery, (Analysis of Observed Cases of Stomach Cancer in the Surgical Departments of the Vilnyus First Soviet Clinical Hospital from 1945 to 1957)," Vil'nyus, 1960, 24 pp, 250 copies (Kaunas State Medical Institute) (KL, 47/60, 106)

L 46850-66 EWT(m)/T/EWP(t)/ETI IJP(c) DS/JD/GD

ACC NR: AT6024970 (N) SOURCE CODE: UR/0000/65/000/000/0137/0141

AUTHOR: Andryushchenko, F. K.; Gavyrina, N. N. 42 B+1

ORG: none

TITLE: Electrodeposition of a nickel-germanium alloy

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Zashchitnyye metallicheskiye i oksidnyye pokrytiya, korroziya metallov i issledovaniya v oblasti elektrokhimii (Protective metallic and oxide coatings, corrosion of metals, and studies in electrochemistry). Moscow, Nauka, 1965, 137-141

TOPIC TAGS: electrodeposition, nickel alloy, germanium alloy

ABSTRACT: The paper discusses the electrode processes involved in the deposition of Ni, Ge, and their alloys from electrolytes containing NH_4Cl as the main component and admixtures of free ammonia and ammonium oxalate, which formed ammine complexes. Polarization curves for the Ni-Ge alloy showed that when Ni and Ge are codeposited from an electrolyte containing 4.4 g/l Ni, 1.75 g/l Ge, and 250 g/l NH_4Cl, the charge of Ge ions is depolarized, and that of Ni ions is overpolarized. The optimum composition of the electrolyte from which an α-solid-solution-type-Ni-Ge alloy of great microhardness (810 kg/mm^2) can be deposited was found to be: 10-12 g/l Ni_{met}, 125-130 g/l NH_4Cl, 0.45-0.5 g/l Ge_{met}, 150 ml/l $(NH_4)_2C_2O_4$, t = 30-35°, cathodic current density 0.6 A/dm^2. Orig. art. has: 5 figures.

SUB CODE: 11,13/ SUBM DATE: 13Aug64/ ORIG REF: 002/ OTH REF: 006

Card 1/1

27344

S/080/61/034/009/007/016
D204/D305

5.4700

AUTHORS: Sysoyev, A.N. and Gavyrina, N.N.

TITLE: Comparative investigations of certain electrochemical properties of germanium and tin

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 9, 1961, 2001 - 2007

TEXT: The probability of the future application of non-aqueous electrolytes for the deposition of germanium and germanium alloys has prompted the authors to investigate certain electrochemical properties of germanium and tin. Tin was chosen as the object of comparison because its chlorides form complexes with ethylene glycol similar to those formed with germanium chloride; also, germanium and tin form alloys, the addition of small quantities of another metal to which may prevent the polymorphic transformation of tin (at approximately -13°) which would permit a more reliable protection of tin-coated metals. Deposition of germanium was studied

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Comparative investigations of ...

by plotting polarization curves. A plate or a round rod of copper was used as the cathode and a graphite rod of cylindrical shape and large surface area, as the anode. A saturated calomel half-cell was used as the reference electrode. The ethylene glycol used was distilled at 195-197°. $GeCl_4$ for one series of experiments was synthesized from germanium dioxide and concentrated HCl, while the commerica-lly pure grade containing hydrochloric acid was used for another. The electrolytes used contained 1, 1.4 and 4 volume % $GeCl_4$ in glycol. The cathode processes were studied over wide ranges of current densities at 18 and 60° with and without agitation of the electrolyte. The duration of polarization for all experiments was 12 minutes. It was found that metallic germanium was deposited from a solution containing 4 volume % of anhydrous $GeCl_4$ at 60° at current densities of 0.2 A/dm^2 and above, 0.3-0.4 A/dm^2 being the upper current density limit. At concentrations of 1 and 1.4 volume % at normal as well as elevated temperatures, a dark, smeary film forms at the cathode (probably $GeO \cdot nH_2O$) with simulta-

Card 2/

Comparative investigations of ...

neous evolution of hydrogen. The formation of a complex of the $(CH_2OHCH_2O)_2GeCl_2$-type does not cause the germanium deposition potential to be shifted in the negative direction. The polarization curves for tin have the typical form of the curves obtained during electrolytic deposition of germanium. Metallic deposits of a silvery white color are obtained from an electrolyte of $SnCl_4 \cdot 5H_2O$ in ethylene glycol containing 18 g/l Sn, at current densities of 0.2-1.5 A/dm^2. On further raising the current density, spongy deposits form. From solutions containing Sn^{2+}, spongy deposits are obtained at current densities of 0.2-0.3 A/dm^2, and with further increase in current density, these are transformed to dendrites. There are 7 figures and 11 references: 1 Soviet-bloc and 10 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: J. Srekoly, J. Electrochem. Soc., 98 8, 1951; C. Fink and V. Dorkras, J. Electrochem. Soc., 96, 60, 1949; D. Ovencach and F. Mathers, Trans. Electrochem. Soc., 64, 305, 1933; R. Blue and T. Mathers, Trans. Electrochem. Soc., 69,

Card 3/4

27344
S/080/61/034/009/[illegible]/016
D204/D305

Comparative investigations of ...

519, 1936.

SUBMITTED: August 29, 1960

Card 4/4

L 06372-67 EWT(m)/EWP(t)/ETI LJP(c) JD/HW

ACC NR: AP6027490 (N) SOURCE CODE: UR/0418/66/000/003/0079/0082

AUTHOR: Andryushchenko, F. K. (Candidate of technical sciences); Marchenko, M. A. (Candidate of technical sciences); Ionycheva, L. S. (Engineer); Gavyrina, M. I. (Engineer)

ORG: None

35
34
B

TITLE: Electrodeposition of zinc and nickel alloys with rare metals

SOURCE: Tekhnologiya i organizatsiya proizvodstva, no. 3, 1966, 79-82

TOPIC TAGS: indium containing alloy, germanium containing alloy, nickel base alloy, zinc base alloy, electrodeposition, electrochemistry

ABSTRACT: The authors discuss the production of nickel-germanium and zinc-indium alloys by electrochemical methods. The joint precipitation of Ni and Ge requires complex electrolytes with a low germanium ion activity. The solution selected for this purpose was a complex of ammonium chloride and ammonia water with and without additives of free ammonia and ammonium oxalate. The electrolyte was prepared by dissolving $Ni(OH)_2$ and GeO_2 in a saturated solution of ammonium chloride with heating no higher than 80°C. The concentration of electrolyte components was (g/l): 1.75-4.4 Ni, 1.75 Ge and 250 NH_4Cl. Polarization curves for separate precipitation of germanium and nickel show a shift toward more negative potentials for germanium. The curve for the alloy

Card 1/2 UDC: 621.357.74/669.24:669.783+669.87:669.5

with a nickel concentration of 4.4 g/ℓ and a germanium concentration of 1.75 g/ℓ is shifted toward more positive potentials in comparision with the curves for the individual metals. This indicates depolarization of the germanium ions and excess polarization of the nickel ions during joint precipitation. The addition of ammonium oxalate and free ammonia improves the quality of the alloy deposition. The base for the electrolyte used in deposition of indium-zinc alloy was a tartrate complex of indium and zinc ammonium. A table is given showing the compositions of six electrolytes which were studied. The polarization curve for Zn-In is shifted toward positive values with respect to the curves for zinc and indium separately. Analysis of the polarization curves shows that the polarization for indium precipitation is considerably greater than that for zinc with an increase in current density. A high quality alloy containing 3-15% indium was produced with a current density of 0.5-1.0 a/dm^2 with the following electrolyte composition (g/ℓ): metallic indium (in the sulfate) — 0.5; metallic zinc (in the sulfate) — 30; sodium sulfate — 50; ammonium sulfate — 25; sodium bitartrate — 20; and an aqueous solution of ammonia (25%) — 250 ml/ℓ. This alloy has a higher resistance to corrosion than pure zinc plating. Orig. art. has: 1 table.

SUB CODE: 11/ SUBM DATE: None

GAV'YUK, S.P., podpolkovnik meditsinskoy sluzhby

Conference of physicians of a military command. Voen.-med. zhur. no. 1:95-96 Ja '60. (MIRA 14:2)
(ODESSA REGION--MEDICINE, MILITARY)

GAV'YUK, S. P. and KONSTANTINOVSKIY, A. F.

"Experience of the organization of the scientific research work of the medical personnel in the district" - p. 66

Voyenno Meditsinskiy Zhurnal, No. 3, 1962

L 45378-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) Pf-4/Pad IJP(c)
JD/HW

ACCESSION NR: AP5007001 S/0129/65/000/003/0017/0022

AUTHOR: Puckhov, B. I.; Rakhshtadt, A. G.; Rogel'berg, I. L.; Gavze, A. L.

TITLE: Hardening of copper and nickel alloys during prerecrystallization annealing, and softening with repeated deformation

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 3, 1965, 17-22, and insert facing p. 25

TOPIC TAGS: metal hardening, metal softening, anisotropy, metal physical property, plastic deformation

ABSTRACT: The article discusses the effect of repeated deformation (carried out after prerecrystallization annealing) on the hardness of metals and alloys and their resistance to small plastic deformations. Nonremelted electrolytic nickel, a single-phase alloy (aluminum bronze with 7% Al), and a two-phase precipitation hardening alloy (beryllium bronze) containing 2.53% Be and 0.31% Ni were studied. Strips of the alloys were rolled, subjected to prerecrystallization annealing, and repeated deformation (rolling) with different degrees of work hardening. Hardening and softening were evaluated from changes in hardness and tensile strength, and

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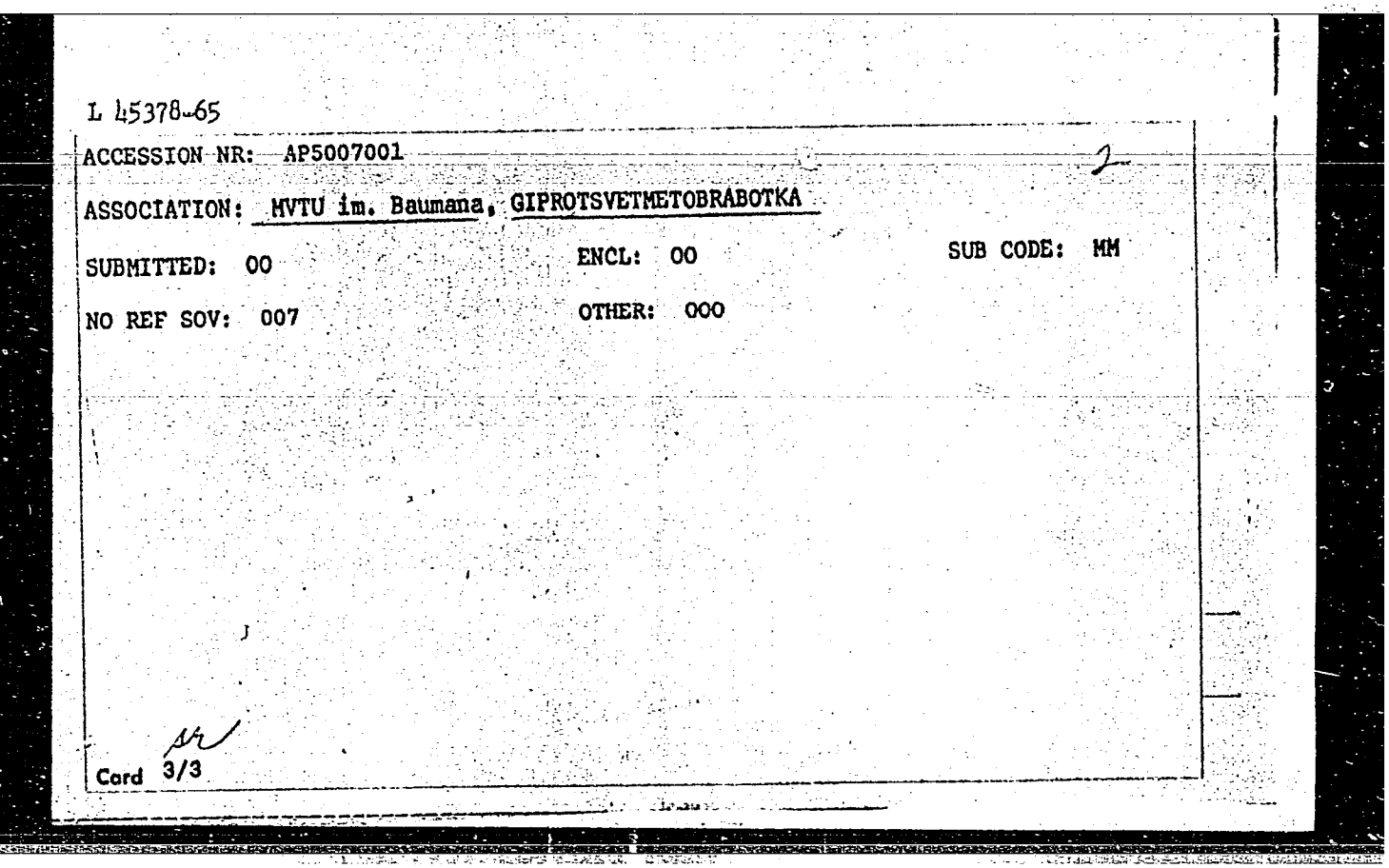
L 45378-65

ACCESSION NR: AP5007001 O

softening was measured on specimens cut at different angles to the direction of rolling. Repeated deformation was found to cause considerable softening in all cases. Softening was most apparent in the fall-off of resistance to small plastic deformations. Repeated plastic deformation in the direction of the initial deformation raises the elastic limit, but does not change the anisotropy of the elastic limit. A change in the direction of the repeated deformation changes this anisotropy by increasing the hardening in some directions and softening the alloy in others. Repeated plastic deformation of alloys following the initial deformation and prerecrystallization annealing causes softening in all directions, but to different degrees. The type of anisotropy depends on the direction of the second deformation with respect to the first. The Konobeyevskiy-Rovenskiy effect is based on the fact that polygonization appears during prerecrystallization annealing and breaking up of the polygonized substructure during repeated deformation. This effect is general and inherent for both pure metals and alloys; changes in the fine structure of alloys are complicated by redistribution of component atoms, and therefore these changes have a more pronounced effect on softening and hardening in alloys. Orig. art. has: 4 figures.

Card 2/3



L 45378-65

ACCESSION NR: AP5007001

ASSOCIATION: MVTU im. Baumana, GIPROTSVETMETOBRABOTKA

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 007 OTHER: 000

Card 3/3

GAVZE, M.I., red.; BUDANOV, G.V., otv.za vypusk; REZNIKOV, A.I., otv.za vypusk; PEVZNER, A.S., red.izd-va; SOLNTSEVA, L.M., tekhn.red.

[Cost manual for assembling equipment] TSennik na montazh oborudovaniia. No.10 [Communication, broadcasting, television, and signaling] Sviaz', radioveshchanie, televidenie i signalizatsiia. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam. 1958. 242 p. (MIRA 12:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
(Telecommunication--Equipment and supplies)

GAVZE, M.I., inzh., red.; MUNITS, A.P., red.izd-va; EL'KINA, E.M., tekhn.red.

[Standards of production for surveying and engineering research paid for as piece work] Normy vyrabotki na proektnye i izyskatel'skie raboty, oplachivaemye sdel'no. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam. Pt.24. [Communication and signalling] Pt.24. Sviaz' i signalizatsiia. 1959. 197 p. (MIRA 13:1)

1. Russia (1923- U.S.S.R.) Ministerstvo svyazi. (Power engineering)

GAVZE, M.I., otv.red.; KISELEVA, G.I., red.; KARABILOVA, S.F., tekhn.red.

[Temporary price list for equipment assembly] Vremennyi tsennik na montazh oborudovaniia. Moskva, Sviaz'izdat. No.1. 1959. 24 p. (MIRA 14:2)

1. Russia (1923- U.S.S.R.) Ministerstvo svyazi. Gosudarstvennyy soyuznyy proyektnyy institut.
(Telecommunication--Equipment and supplies)

GAVZE, M.N.

USSR/Metals - Steel, Mercury Jan 52

"Effect of Mercury on the Surface of Steel at Elevated Temperatures," Acad N. T. Gudtsov, M. N. Gavze

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 1, pp 67-71

Investigates Hg-steel and Hg-steel-O systems at various temps, pressures and holding periods. Hg practically does not react with steel during contact period up to 1,400 hrs and temp up to 800°. Action of Hg on carbon steel was revealed only in presence of O, causing successive sepn of scale layers from surface of steel. Expts permitted study of deterioration mechanism of tube walls in mercury instruments. 219T44

GAVZE, L. N.

Dissertation: "Reaction of Steel With Mercury at Elevated Temperature." Cand Tech Sci, Inst of Metalluryg imeni A. A. Baykov, Acad Sci USSR, 22 Apr 54. (Vechernyaya Moskva, Moscow, 13 Apr 54)

SO: SUM 243, 19 Oct 1954

GUDTSOV, Nikolay Timofeyevich; GAVZE, Mariya Nikolayevna; MITIN, V.I., redaktor izdatel'stva; KISELEVA, A.A., tekhnicheskiy redaktor; KASHINA, P.S., tekhnicheskiy redaktor

[The effect of mercury as heat conductor on steel in power installations] Vozdeistvie rtuti kak teplonositelia na stal' v energeticheskikh ustanovkakh. Moskva, Izd-vo Akademii nauk SSSR, 1956. 146 p. (MLRA 9:10)
(Mercury)
(Power engineering)

GAVZE, M.N.

1/4E2c
11E3d

[illegible], [illegible] and M. N. GAVZE. "Action of Mercury on Steel in Power Plants." 8vo. pp 147. Illustrated Moscow, 1956: U.S.S.R. Academy of Sciences Press.

The constant efforts of fuel engineers to improve the efficiency of fuel led to the development of high productivity mercury-water binary cycles. The use of atomic power requires high potential heat carriers. Mercury has many advantages in this direction.

This monograph discusses the reactions of iron with mercury and the effect of mercury on steel at high temperatures and pressures. The [illegible] power plants, metallurgical plants and atomic energy installations is reviewed. The nature of the amalgams of iron and the mutual solubility of mercury [illegible] and the behaviour of steel vis-a-vis mercury [illegible] behaviour at high temperatures are discussed. Providing oxygen is not present, mercury is not an aggressive medium at temperatures ranging from room temperature to 900-1000° C. Duration of contact between steel and mercury does not in itself affect this fact. Neither is there any real danger of the penetration of mercury to the steel grain boundaries. In the presence of oxygen, however, mercury will penetrate the pores of the scale coating and the non-scaled steel surface, at high temperature. In carbon steels, the scale retains the mercury in the pores and adsorbs it at the surface thus preserving the bond with the entire

1/2

GUDTSOV, N.T.; GAUZE, M.N.

mass of mercury and depriving it of its mobility. The effect of mercury on steel therefore, is determined, at high temperatures, by the nature of the scale formed at the surface of the steel, the main factor being the density and strength of the oxide layer and the adhesion between it and the steel surface. The nature of scaling in mercury contact conditions at high temperature is described in relation to different types of steel.

This book should be a useful addition to published data in this field. Much tabulated data are included. However, like most Russian technical books, it lacks an index.

R. SEWELL.

GAVZE, M.N.

26

The effect of supersonic vibrations on the course of processes which take place in metal alloys. N. T. Gudtsov and M. N. Gavze. *Zhur. Neorg. Khim.* 1, 1533-8(1956).—Supersonic vibrations can increase the rate of protracted processes which take place in melts such as dispersion solidification. The data are not sufficient to stipulate the mechanism of these processes. ——— I. Rowar Leich

2 struck

Inst. Metallurgy im. A.A. Baykov, AS USSR

S/509/62/000/010/002/005
I003/I242

AUTHOR: Gavze, M.N.

TITLE: The relation between the properties of low-alloy Cr-Ni steel and its chromium content

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Trudy, no. 10. Moscow, 1962, 188-193. Metallurgiya, metallovedeniye, fiziko-khimicheskiye metody issledovaniya

TEXT: The constant need to save nickel stimulated the search for ways of developing steels with a low nickel content and with high strength, plasticity and hardness. In the present

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S/509/62/000/010/002/005
I003/I242

The relation between the...

work steels with a nickel content of about 1% and various amounts of chromium were investigated. The mechanical properties of steel steadily improve up to 2.5% of Cr. At a 3.5% Cr content a drop in strength accompanied by a rather sharp increase in plasticity takes place. The influence of chromium on the hardening of steel and on the mechanical properties of steel castings is very positive. The increase in strength is due partly to the carbide phase but even more so to the alloying of ferrite. There are 3 figures and 4 tables.

Card 2/2

GAVZE, M.N.

AID Nr. 981-10 3 June

EFFECT OF Cr IN Cr-Ni STEELS (USSR)

Gavze, M. N. IN: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Trudy, no. 11, 1962, 83-89. S/509/62/000/011/004/019

Experiments with seven steels containing 0.34-0.40% C, 0.07-1.12% Ni, and 0.09-3.39% Cr revealed that at a C content of 0.40% and an Ni content of 1%, Cr increases the stability of austenite in the whole range of subcritical temperatures, especially at contents of 1.5% and over. Hardenability is improved and the tensile and yield strengths are increased without a significant sacrifice in ductility. Moreover, with a Cr content of 3.39% the high austenite stability makes it possible to use two-step quenching (cooling to 500°C, holding for 15 min, water quenching) or even ausforming (cooling to 600°C, plastic deformation with a reduction of 7 to 10%, oil quenching). Ausformed steel with 0.40% C, 1.10% Ni, and 3.39% Cr had a tensile strength of 217.4 kg/mm^2, yield strength of 178.1 kg/mm^2, elongation at 8.8%, and reduction of area of 33.5%. Corresponding figures for the same steel two-step quenched and tempered at 500°C are 176.9 kg/mm^2, 147.3 kg/mm^2, 9.3% and 37.3%, and for conventionally hardened and tempered at 500°C, 141.3 kg/mm^2, 121.1 kg/mm^2, 8.9%, and 43.4%. [DV].

Card 1/1

PHASE I BOOK EXPLOITATION SOV/6505

Gavze, M. N. and N. T. Gudtsov

Vozdeystviye rtuti kak teplonositelya na stal' v energeticheskikh ustanovkakh (Effect of Heat-Carrying Mercury on Steel in Power Plants). 2d ed., revised and enlarged. Moscow, Izd-vo AN SSSR, 1963. 239 p. 2000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Gosudarstvennyy komitet po chernoy i tsvetnoy metallurgii. Institut metallurgii im. A. A. Baykova.

Resp. Ed.: I. A. Oding, Corresponding Member, Academy of Sciences USSR; Ed. of Publishing House: Ye. N. Grigor'yev; Tech. Ed.: O. G. Ul'yanova.

PURPOSE: This book is intended for engineers and scientific research workers specializing in the application of liquid-metal heat carriers and the employment of mercury in contact with metals.

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Effect of Heat (Cont.)

COVERAGE: The book reviews the fields of mercury application as a heat carrier and the problems of the interaction of mercury and its vapors with steel at elevated temperature and pressure. Soviet and non-Soviet works related to this field are systematically surveyed and evaluated. The mechanism of the effect of mercury on steel is analyzed and explained in relation to the selection of steel types suitable for use in a mercury medium. Problems of wetting steel walls with mercury alloyed with surface-active elements are discussed, and data on the interaction of mercury with various metals are presented. No personalities are mentioned. There are 57 references: 40 Soviet, 10 English, and 7 German.

TABLE OF CONTENTS:

L 16586-65 EWT(m)/EWP(w)/EWA(d)/EWP(t)/EWP(b) ASD(m)-3 MJW/JD/MLK
ACCESSION NR: AT4045995 S/0000/64/000/000/0199/0201

AUTHOR: Prokoshkin, D. A.; Gavze, M. N.; Baranov, G. N. B+1

TITLE: Effect of alloying additions on certain mechanical properties of austentic chromium-nickel-manganese steel of the 14-6-9 type at room and subzero temperatures

SOURCE: AN SSSR. Institut metallurgii. Issledovaniya metallov v zhidkom i tverdom sostoyaniyakh (Research of metals in liquid and solid states). Moscow, Izd-vo Nauka, 1964, 199-201

TOPIC TAGS: chromium nickel manganese steel, EI100 steel, EI100 steel property, EI100 steel additional alloying

ABSTRACT: The effect of additional alloying of the chromium-nickel-manganese austentic steel of the 14-6-9 type (EI-100) has been studied in an attempt to increase the yield strength without affecting the austentic structure, and consequently the ductility, at temperatures from 500C to -196C. The alloying additions included 0.16—6.22% N, 0.03—0.16%C, 1.96 and 2.0% Cu, 2% Co, 1.66% V, 1.80 and 2.03% W, or

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L 16586-65
ACCESSION NR: AP4045995

1.78% Mo. Steels were melted in an induction furnace, forged, annealed at 1150C, water quenched, and tested at room temperature and at -196C, it was found that additional alloying with elements forming substitutional solid solutions has no affect on yield strength. Alloying with elements forming interstitial solid solutions, and as carbon and nitrogen, produces better results. The increase of carbon content, especially when combined with addion of nitrogen raises the yield strength of of steel. However, while C and N have no adverse effect on steel ductility at room temperature, they lower the notch toughness considerably at -196C when the content of carbon is increased to 0.07%. Although the notch toughness remains at a satisfactory level, it may drop below this level as a result of the precipitation of carbides occuring at the upper level of operational temperatures, 500C. It follows therefore that the steel under investigation, cannot serve as a lease for high-strength steels suitable for operation in the temperature range from 500C to -196C. Orig. art. has: 3 tables

ASSOCIATION: none

Card 2/3

L 16586-65

ACCESSION NR: AP4045995

SUBMITTED: 18May64 ENCL: 00 SUB CODE: MM

NO REF SOV: 001 OTHER: 002

Card 3/3

ACCESSION NR: AP4029837 S/0279/64/000/002/0143/0148

AUTHOR: Gavze, M. N. (Moscow)

TITLE: The effect of mercury covering on the breakdown character of steel samples

SOURCE: AN SSSR Izv. Metallurgiya i gornoye delo, no. 2, 1964, 143-148

TOPIC TAGS: steel, mercury, microscopic crack, breakdown, stress, surface active medium, alloy, metal, amalgam

ABSTRACT: Of the three stages of metal breakdown (microscopic cracks, propagation of the cracks, and large-scale breakdown of the metal) the author investigated the last two fields. The effect of mercury amalgam on the mechanical properties of various types of steels is presented in a table, as well as the chemical composition and heat treatment of samples of the investigated brands of steel. An experiment demonstrated the effect of the adsorption effect in its pure form on a sample of non-interacting metal systems under room temperature conditions. A re-examination of certain established positions on the physico-chemical properties of embrittling liquid-metal media was accomplished. It was noted that the examined system is an interesting object for research in the realm of physico-chemical mechanics and especially for the study of a mechanism of friable breakdown of metals on samples of

Card 1/2

ACCESSION NR: AP4029837

iron, nickel and their alloys which are basic construction materials for operation at high, medium, and low temperature under high load conditions. By having permitted friable breakdown of metal, such operations may prevent serious accidents. Orig. art. has: 2 tables and 3 figures.

ASSOCIATION: none

SUBMITTED: 24May63 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: ML NO REF SOV: 004 OTHER: 002

Card 2/2

L 43813-66 EWT(m)/EWP(t)/ETI IJP(c) JD/HW/JG
ACC NR: AP6030607 (A,N) SOURCE CODE: UR/0413/66/000/016/0095/0095

INVENTOR: Gavze, M. N.

ORG: none

TITLE: Method of applying mercury coatings to iron, steel, nickel and nickel alloy. Class 40, No. 185067

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 95

TOPIC TAGS: mercury, ~~coating~~, iron, ~~coating~~, steel ~~coating~~, nickel, ~~coating~~, nickel alloy, ~~coating~~, metal coating

ABSTRACT: This Author Certificate introduces a method of applying mercury coatings to iron, steel, nickel and nickel alloys by treating the metal parts with mercury in a constantly stirred hydrochloric acid solution. To apply the coating to metals which are not wettable by or do not react with mercury, or to oxidized metal surfaces, magnesium is added to the solution. In a variant of this method, magnesium is added to a 10% hydrochloric acid solution in the proportion 1:3000 to the mercury weight. [ND]

SUB CODE: 13/ SUBM DATE: 24Apr63/ ATD PRESS: 5077

Card 1/1 fv UDC: 669.791.5

GAVZE, R.I.

Emphysema of the cheek. Stomatologiia no.4:62 Jl-Ag '55(MLRA 8:10)

1. Iz stomatologicheskogo otdeleniya (zav. R.I.Gavze) Chistoprudnoy poliklinik No.7. Kuybyshevskogo rayona Moskvy (glavnyy vrach V.A.Mash'yanova)
(EMPHYSEMA)

GAVZHAK, Z.

SOV/124-57-8-8913

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 8, p 49 (USSR)

AUTHORS: Galeyev, A. F., Kurmanayevskiy, V. V., Gavzhak, Z.

TITLE: Contribution to the Determination of the Velocity of Motion of a Substance Within the Conical Bowl of a Centrifuge (K voprosu opredeleniya skorosti dvizheniya materiala po konicheskomu barabanu tsentrifugi)

PERIODICAL: Tr. Kazansk. khim. - tekhnol. in-ta, 1956, Nr 21, pp 195-208

ABSTRACT: Bibliographic entry

Card 1/1

GAWALOWSKI, K.

Use of penicillin G in the treatment of syphilis. Cas.lek.cesk. 89 no.26:739-743 30 June 50. (CLML 19:4)

GAWALOWSKI, K.

Notes on the pathogenesis of eczema. Cesk. derm. 26 no.10:424-432 Dec 1951. (CIML 22:1)

1. Of the First Dermatological Clinic (Head--Prof. K. Gawalowski, M.D.)

GAWALOWSKI, K.

New method of registration in syphilis. Cesk. derm. 28 no.6:240-246 June 1953. (CIML 25:4)

1. Of the First Dermatological Clinic (Head--Prof. Gawalowski, M.D.)

GAMALOVSKI, K., prof. MUDr

Syphilitic antibodies according to biochemical analysis.
Cesk. derm. 29 no.2:80-90 Ap '54.
(SYPHILIS, immunology,
*antibodies, biochem. aspects)
(ANTIGENS AND ANTIBODIES,
*syphilis antibodies, biochem. aspects)

GAWALOWSKI, K.

GAWALOWSKI, K., Prof. MUDr

Indications of penicillin preparations in venerology. Prakt. lek., Praha 34 no.7:159-160 5 Apr 54.

(VENEREAL DISEASES, therapy
*penicillin prep.)
(PENICILLIN, therapeutic use
*venereal dis.)

GAWALOWSKI, K.

GAWALOWSKI, K.; NOVAK, J.; PROCHAZKA, K. "Indication of Penicillin Therapy in Dermatology." p. 194.
(Casopis Lekaru Ceskych. Vol. 93, no. 8, Feb. 1954. Praha.)

East European Vol. 3, No. 6 4
SO: Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

GAWALOWSKI, K.

"Instructions for the use of penicillin therapy in venereology." p. 273. (Casopis Lekaru Ceskych. Vol. 93, no. 11, March 1954, Praha.)

SO: Monthly List of East European Accessions, vol. 3, no. 2, Library of Congress, June 1954, Uncl.

GAWARECKI, H.

From the history of Lublin. p. 463, (WIEDZA I ZYCIE, Vol. 21, No. 7, July 1954 Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5 May 1955, Uncl.

SAWART, T.

Yarn doubler [illegible], p. 370

PRZEGLAD WLOKIENNICZY. (Stowarzyszenie Inzynierow i Technikow Przemyslu Wlokienniczego) Lodz, Poland. Vol. 13, No. 7, Jul 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1959.

Uncl.

GAWART, Tadeusz

Development of the looms used in the Saurer Manufacture. Przegl Wlokien 16 no.2:86-88 F '62.

1. Centralne Biuro Technicsne Przemyslu Maszyn Wlokienniczych, Lodz.

GAWECKA, G.

"Tasks of the Association of Engineers and Technicians of the Chemical Industry" p. 276 (Chemik, Vol. 6, No. 10, Oct. 1953, Katowice)

SO: Monthly List of East European Accessions, Vol. 3, No. 3 Library of Congress, March 1954, Uncl.

GAWECKA, Irena; KRUS, Stefan; REWERSKI, Wojciech

Effect of certain antibiotics (streptomycin, neomycin, terramycin) on functional and morphological changes of the kidney in experimental animals. Pol. arch. med. wewnet. 35 no.5:627-631 '65.

1. Z Zakladu Farmakologii Eksperymentalnej AM w Warszawie (Kierownik: prof. dr. med. P. Kubikowski) i Zakladu Anatomii Patologicznej AM w Warszawie (p. o. Kierownika: doc. dr. med. R. Walentynowicz-Stanczyk).

MEDUSKI, J.; LINDE, A.; GAWECKA, I.

The effect of washing heart muscle brei on its biological activity. II. Citric acid metabolism in washed brei. Acta physiol. polon. 3 Suppl. 3: 284-285 1952. (CLML 24:1)

1. Of the Department of Secondary Changes of the Biochemistry Division (Head--Prof. Josef Heller, M.D.) of the State Institute of Hygiene.

MEDUSKI, J.;PIECHOCKI, T.;GAWECKA, I.;LINDE, A.

Inactivation of strophantin K by the heart muscle in vitro and its relation to citric acid metabolism. Acta physiol. polon. 3 Suppl. 3: 287-292 1952. (CIML 24:1)

1. Of the Department of Secondary Changes of the Biochemistry Division (Head—Prof. Jozef Heller, M.D.) of the State Institute of Hygiene.

GAWECKA, I.

GAWECKA, I.; VENULET, J.; WOJNAROWSKA, M.; ZAKRZEWSKI, K.

[redacted]

Sufonated dextran with heparin-like action. Acta physiol. polon. 5 no.4:648-649 1954.

1. Z Instytutu Hematologii w Warszawie. Dyrektor: dr. I.Trojanowski. Z Instytutu Lekow w Warszawie. Dyrektor: prof. dr P.Kubikowski.

(DEXTRAN,
sulfone-treated prep., heparin-like eff.)
(SULFONES, effects,
on dextran, heparin-like eff. of sulfonated dextran)

GAWECKA, IRENA

GAWECKA, Irena

Investigations of thromboplastic substances. Acta physiol. polon. 5 no.4:652 1954.

1. Z Zakladu Farmakologii Instytutu Lekow w Warszawie. Kierownik: dr. J.Vemulet.
(THROMBOPLASTIC SUBSTANCES, pharmacol.)

GAWECKA, I.; SZMAL, Z.; VENULET, J.

Effect of physostigmine on action of pendiomide. Acta physiol. polon. 7 no.3:351-358 1956.

1. Z Zakladu Farmakologii Instytutu Lekow w Warszawie Kierownik: dr. J. Venulet.
(PHYSOSTIGMINE, effects,
on reactivity to pendiomide (Pol))
(AUTONOMIC DRUGS, effects,
pendiomide, eff. of physostigmine on reactivity (Pol))

GAWECKA, I.; WOJCIK, R.

Observations on the problem of biological and statistical evaluation of the activity of cardiac glycosides. Acta physiol. polon. 10 no.3:423-434 May-June 59.

1. Z Zakladu Farmakologii Instytutu Lekow w Warszawie Kierownik: dr. J. Venulet.
(CARDIAC GLYCOSIDES, pharmacol.)

GAWECKA, Irena; SZMAL, Zdzislaw; WOJCIK, Ryszard

Evaluation of biological method for the determination of adrenalin in drugs. Acta physiol.polon. 11 no.3:457-468 My-Je '60.

1. Z Zakladu Farmakologii Instytutu Lekow w Warszawie Kierownik: doc. dr J.Venulet.
(EPINEPHRINE chem)

GAWECKA, Irena; WOJCIK, Ryszard

Studies on the effect of pigeon's weight and of the time of determination on the biological activity of Digitalis purpurea. Acta physiol. Pol. 13 no.1:217-226 '62.

1. Zaklad Farmakologii Instytutu Lekow w Warszawie Kierownik: doc. dr J. Venulet Katedra Statystyki Matematycznej SGGW Kierownik: prof. dr Z. Nawrocki.

(DIGITALIS pharmacol)

SZYMANSKA, Alina; GAWECKA, Irena; REWERSKI, Wojciech

Studies on the suitability of polyvinyl alcohol for wound dressing purposes. Acta pol. pharm. 19 no.4:363-368 '62.

1. Z Instytutu Lekow w Warszawie Dyrektor: prof. dr P. Kubikowski Z Zakladu Farmakologii Akademii Medycznej w Warszawie Kierownik: prof. dr. Kubikowski.
(POLYVINYLS) (BANDAGES) (WOUNDS AND INJURIES)

GAWECKA, Irena

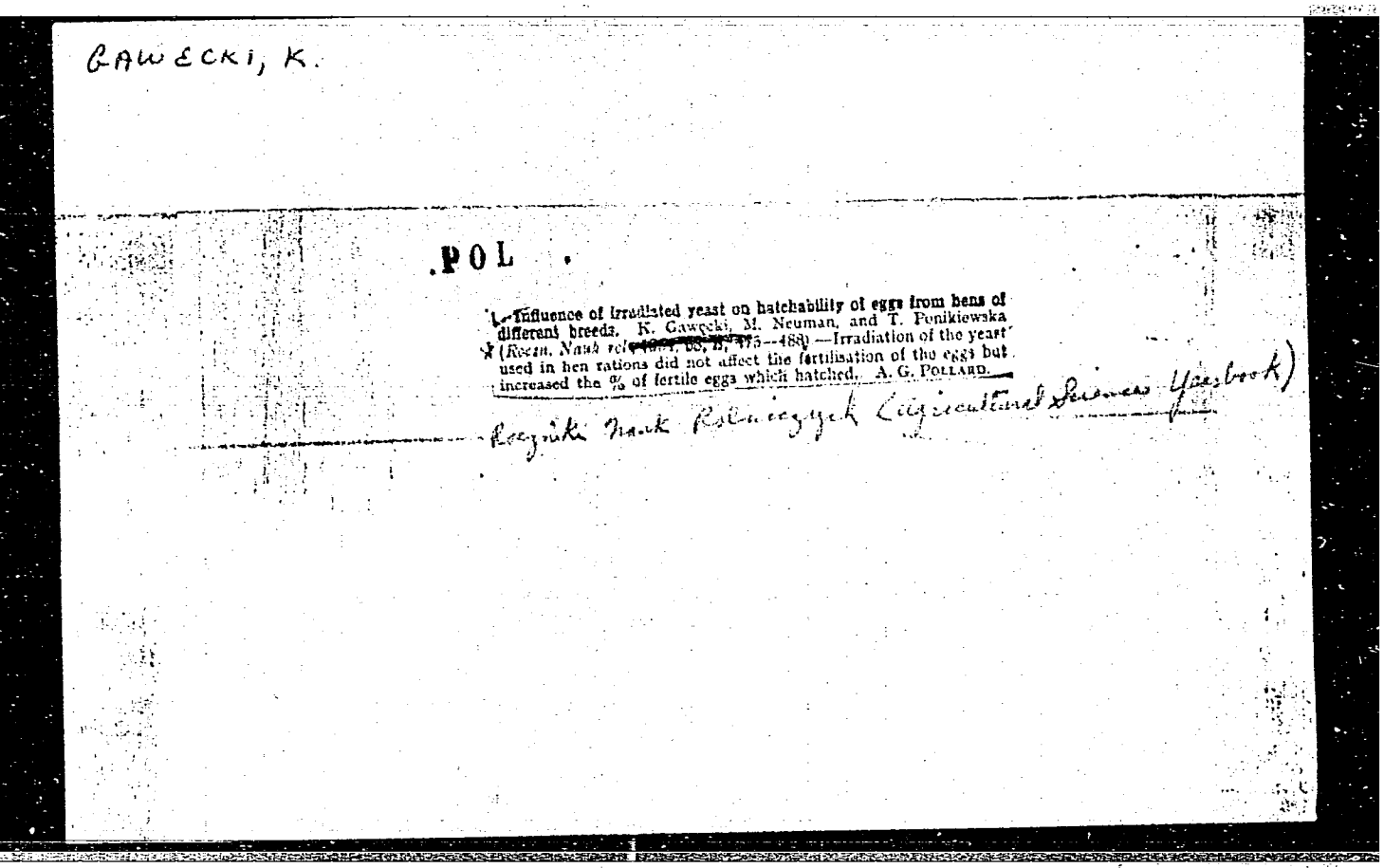
The effect of toluidine blue on reactions of animals to pyrogens obtained from E. coli. Acta physiol. Pol. 16 no.2:303-314 Mr-Ap'65.

1. Zaklad Farmakologii Eksperymentalnej Akademii Medycznej w Warszawie (Kierownik: prof. dr. P. Kubikowski).

GAWECKI, K

POL

Irradiated fodder yeast in autumn and winter feeding of laying hens. K. Gawecki and T. Ponikiewska (*Roczn. Nauk rol.*, 1954, 68, B, 253—270).—No beneficial effects followed the irradiation of yeast included in the ration of laying hens. Use of fodder yeast (10% of the ration), even without supplementation with cod-liver oil, resulted in normal laying. A. G. POLLARD.



GAWECKI, K.

POL

Influence of irradiated yeast on hatchability of eggs from hens of different breeds. K. Gawecki, M. Neuman, and T. Ponikiewska (Roczn. Nauk rol[illegible], B, 175–188) —Irradiation of the yeast used in hen rations did not affect the fertilisation of the eggs but increased the % of fertile eggs which hatched. A. G. POLLARD.

Rocznik Nauk Rolniczych (Agricultural Sciences Yearbook)

GAWECKI, Kazimierz; LIPINSKA, Hanna

Green plants silage used for feeding chicks. Roczniki Wyz Szkola Rol Poznan no.12:153-160 '62.

1. Katedra Zywienia Zwierzat, Wyzsza Szkola Rolnicza, Poznan.

GAWECKI, Kazimierz; LIPINSKA, Hanna

Studies on the influence of achromycin and terramycin on the productivity of laying hens and the hatchability of hen eggs. Roczniki wyz szkola rol Poznan 17:73-89 '63.

1. Department of Animal Feeding, College of Agriculture, Poznan.

GAWECKI, Kazimierz, prof. dr; FELICK, Aleksandra; [illegible], Teresa

Use of dried sugar-beet pulps with added residue of distilled molasses in feeding ruminants. Zesz probl post nauk roln no.41:121-126 '63.

1. Katedra Żywienia Zwierząt, Wyższa Szkoła Rolnicza, Poznań. Kierownik: prof. K. Gawecki.

GAWECKI, Kazimierz, prof. dr; FRELICH, Aleksandra

Best protein level in feeding sheep. Zesz probl post nauk roln no.41:133-140 '63.

1. Katedra Zywienia Zwierzat, Wyssza Szkola Rolnicza, Poznan. Kierownik: prof. dr K. Gawecki.

GAWECKI, Z

POL.

621.316.1

2721. Feeder systems for urban low-voltage closed grid networks. Z. GAWECKI. *Przegląd elektrotech.*, 30, *No.* 11, 473–80 (1954) In Polish.

A large town supply system is divided into separate regions, each containing from 20 to 50 transformers rated from 250–650 kVA. Power to these transformers is supplied through subtransmission cables at 15 kV. On the l.v. side the transformers are interconnected by 115 V closed grid networks. Service reliability, circuit flexibility, short circuit requirements, voltage regulation, capital investment and operating costs are compared for three alternative subtransmission systems: radial, double-feed and multi-feed.

J. ŁUKASZEWICZ

GAWECKI, Z.

Automatic reserve connection in city networks.

P. 12, (Przeglad Elektrotechniczny. Vol. 32, no. 1, Jan. 1956, Warszawa, Poland)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

GAWEDA, Helena; NOWAK, Mieczyslaw

The influence of nitrogen fertilizers on the rapidity of grass lignifying. Postepy nauk roln 8 no.6:57-60 '61.

(Grasses) (Nitrogen)

GAWEDA, Z.

300

Detailed inventory of manganese in Kielce voivodship soils of the pre-fourth-Ice-Age period. M. Strzemski and Z. Gawęda. *Roczniki Nauk Rolniczych* 70A, No. 1, 17-24 (1964). The results of analyses of soil samples belonging to various geol.-petrographic formations show a very irregular distribution of Mn. The following classification of the pre-fourth Ice-Age soils of the Kielce voivodship according to the relative Mn content can be given; soils with the highest Mn content (140–7750 mg./kg. of soil on dry-wt. basis) are the light soils on Triassic sandstone, heavy soils on Gottland slate, and on Triassic and third Ice-Age loom, and Devonian and third Ice-Age calciferous carbonate soils. Soils with the lowest Mn content (0–500 mg./kg.) are various soils of noncarbonate formations of the Cambrian and lower Devonian period, light and medium soils of the Triassic sandstone period and middle chalk sandstone period, and light soils of the third Ice-Age gravel-sand period. Soils with medium Mn content are soils on Carboniferous slate, marl-clayey soils of the middle Tura period, calciferous carbonate soils on the Permian, Triassic, Jurassic, and chalk periods, and calciferous gypsum third Ice-Age soils. The rule that the higher content of Mn is present in heavier formations was prevalent in the majority of samples. Richard Ehrlich

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(1)

GAWEDA, Z.

Detailed inventory of titanium in Kielce voivodship soils of the pre-fourth-Ice-Age period. M. Strzemski and Z. Gawęda. *Roczniki Nauk Rolniczych* 70A, No. 1, 27-51 (1954).—The distribution of Ti in rocks of the pre-fourth Ice-Age period and in soils formed from these rocks in the Kielce voivodship was found to be highly irregular. A definite classification of rock and soil deposits according to Ti content was not possible and only with great difficulty it was possible to distinguish geol.-petrographic groups of soils which are oftener richer in Ti than other groups. Light soils on Ordovian Trias and Lias sandstone, heavier soils on Gottland slate and Trias, and third Ice-Age period loamy soils belong to the groups rich in Ti. The greatest relative accumulation of Ti takes place in soils formed from easily sol. carbonates and gypsum. Ti compds. which are of especially low soly. remain, and show a percentage content which increases at the expense of carbonate and sulfate substances washed out by water. In respect to the distribution of Ti in soil profiles, the soils of the Polish climatic area can be classified according to the following categories: medium and slightly humus soils, poor in Ti and accumulating this element in the humus stratum; medium and slightly humus soils nonpodzolized, in general rich in Ti, not showing accumulation of Ti in any of the profile strata; highly humus soils, nonpodzolized; and litter podzols with various total Ti content accumulating Ti in the humus level. Podzol soils poor in Ti, showing a tendency to accumulate Ti in the underbrush-litter and partially illuvial stratum.

Richard Ehrlich

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SIUTA, Jan; GAWEDA, Zygfryd

Origin and chemical composition of the ferroginous soil concretions. Rocz nauk roln rosl 84 no.1:15-34 '61.

1. Pracownia Chemii Gleb Zakladu Gleboznawstwa, Instytut Uprawy, Nawozenia i Gleboznawstwa, Pulawy.

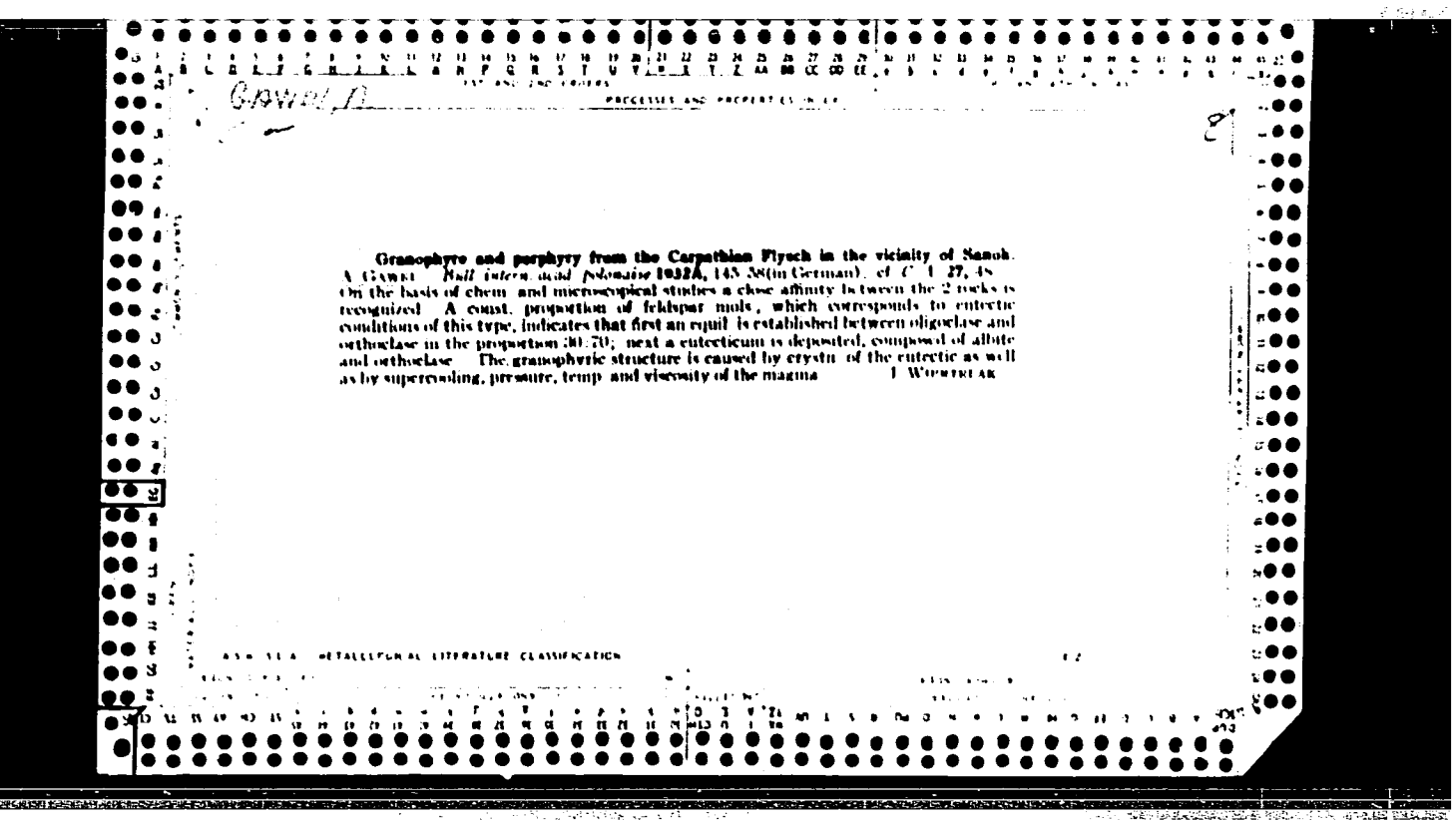
GAWEL, A.

8

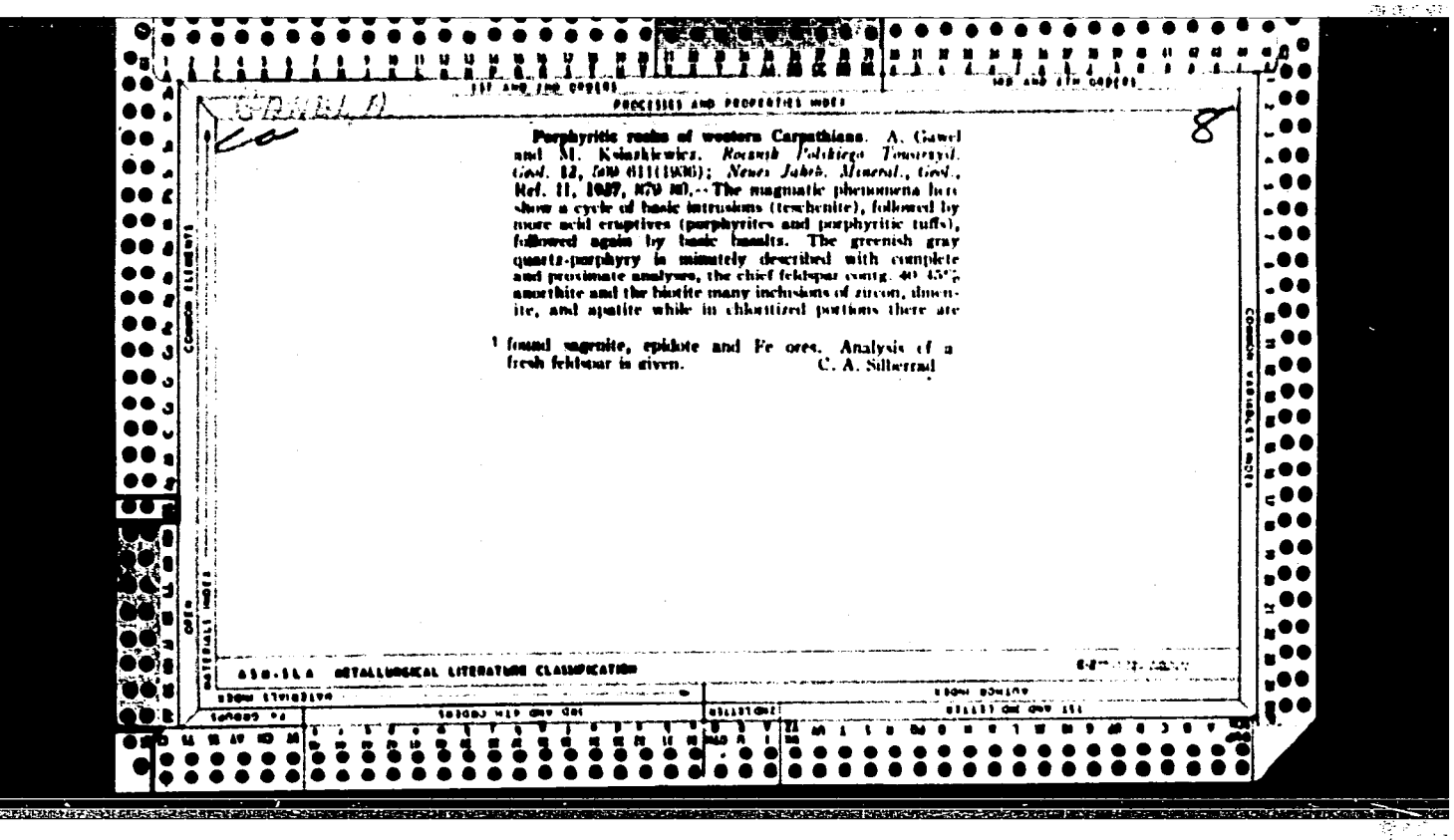
Granites from the Krzemo beds in the vicinity of Sanok, Southern Poland. A. GAWEL. *Bull. intern. acad. polonaise* 1931A, 653-64 (in German). The granites examd. show 2 modifications differing in the structure and chem. compn. The main variable constituents are, resp.: SiO_2 76.27, 75.94; CaO 0.31, 1.45; and K_2O 4.83, 3.20%.

J. WIERTELAK

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



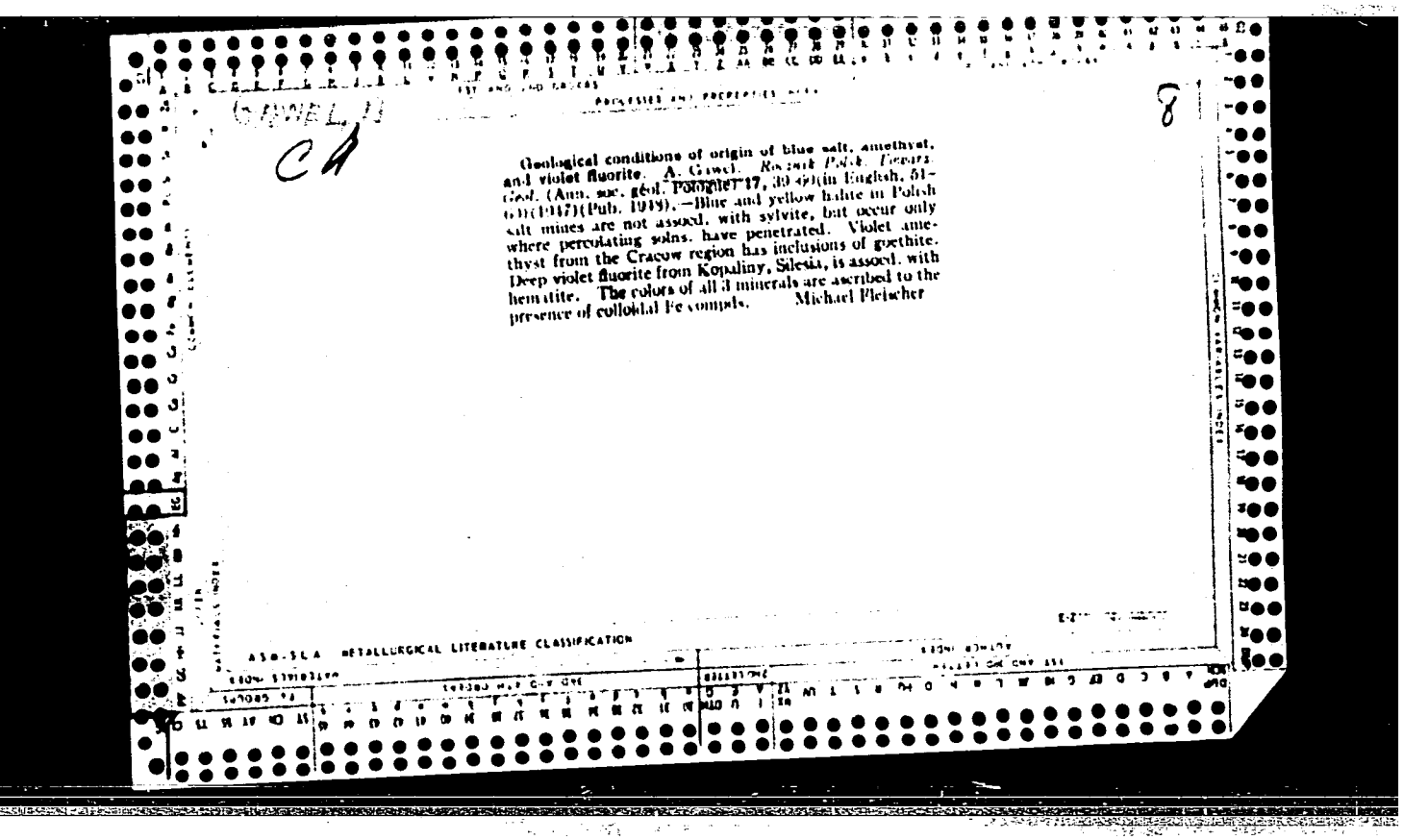
Granophyre and porphyry from the Carpathian Flysch in the vicinity of Sanok. A. Gawel. *Bull. intern. acad. polonaise* **1932A**, 145-58(in German). cf. *C. A.* **27**, 48. On the basis of chem. and microscopical studies a close affinity between the 2 rocks is recognized. A const. proportion of feldspar mols., which corresponds to eutectic conditions of this type, indicates that first an equil. is established between oligoclase and orthoclase in the proportion 30:70; next a eutecticum is deposited, composed of albite and orthoclase. The granophyric structure is caused by crystn. of the eutectic as well as by supercooling, pressure, temp. and viscosity of the magma. I. Wiorkiewicz



PROCESSES AND PROPERTIES INDEX

8

Porphyritic rocks of western Carpathians. A. Gawel and M. Kwiatkiewicz. *Rocznik Polskiego Towarzyst. Geol.* 12, [80 611](1936); *Neues Jahrb. Mineral., Geol., Ref.* II, 1937, 879 80.--The magmatic phenomena here show a cycle of basic intrusions (teschenite), followed by more acid eruptives (porphyrites and porphyritic tuffs), followed again by basic basalts. The greenish gray quartz-porphyry is minutely described with complete and proximate analyses, the chief feldspar contg. 40 45% anorthite and the biotite many inclusions of zircon, ilmenite, and apatite while in chloritized portions there are found magnetite, epidote and Fe ores. Analysis of a fresh feldspar is given. C. A. Silberrad



Geological conditions of origin of blue salt, amethyst, and violet fluorite. A. Gawel. *Rocznik Pol. Towarz. Geol.* (Ann. soc. géol. Pologne) 17, 39-49(in English, 51-60)(1947)(Pub. 1949).—Blue and yellow halite in Polish salt mines are not assocd. with sylvite, but occur only where percolating solns. have penetrated. Violet amethyst from the Cracow region has inclusions of goethite. Deep violet fluorite from Kopaliny, Silesia, is assocd. with hematite. The colors of all 3 minerals are ascribed to the presence of colloidal Fe compds. Michael Fleischer

Gamid, P.

Nephrite. Antoni Gamid. Wiadomości Muzeum Ziemi (Polish Geol. Museum Mag.) 4, 65-70(1940)(French summary).– Description of deposits at Jordanów (Jordansmühl) and Zloty Stok (Reichenstein), lower Silesia.
Michael Fleischer

Gawel, A.

POL.

Heulandite from Rudno (Cracow district). Ewa Piekarska and A. Gawel. *Rocznik Polsk. Towarz. Geol.* 22, 353-73(1952)(Pub. 1954)(in English, 307-73).—Chem. analysis of heulandite from cavities in melaphyric diabases gave SiO_2 60.16, Al_2O_3 14.00, Fe_2O_3 0.90, MgO 1.68, CaO 5.09, Na_2O 0.20, K_2O 1.94, H_2O- 3.76, H_2O+ 11.03, sum 99.45%. It has *ns* (Na) α 1.498, β 1.499. M. Fleischer

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POL

Differential thermal analysis of two asphaltites. A. Gawel. *Roczník. Polsk. Towarz. Geol.* 22, 375–97(1952).—An asphaltite (I) of Miocene age (sp. gr. 1.1088; C 77.18, H 9.07, S 0.40, N 2.10, ash 0.50%) occurs as a filling in a carbonized tree trunk. The ash contains much MgO but very little CaO. Paper chromatography resulted in a series of 7 concentric rings. Differential thermal analysis with 2 Hg thermometers indicated the presence of at least 6 components. A second asphaltite (II) of the Oligocene age (sp. gr. 1.48, C 86.56, H 8.21, S 0.61, H_2O 0.60%) is brittle, black, opaque, and only slightly sol. in benzene and petr. ether. The higher degree of carbonization of II may be a function of its greater age. Differential thermal analysis of II results in a curve with no specific peaks. *Hatchettine* from Bonarka (m. 79.4°, C 85.25, H 14.69%) is given the formula $C_{81}H_{74}$. The asphaltites are classified on an at. C, H, O diagram and their origins are discussed. I. A. B.

GAWEL, A.

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Geo (2)

Chem Abs V48
1-25-54
Mineralogical Chemistry

Michael Fleischer

Jasper from diabase from Niedzwiedzia Góra near Krzeszowice and its pyrogenic alterations. Antoni Gawel (Univ. Krakow, Poland). *Acta Geol. Polon.* 3, 1–32(1953)(English summary).—Intensively altered jasper inclusions in diabase were formed by reaction of the intruded magma with loamy rocks. Petrographic data are given with 8 chem. analyses of rocks.

Michael Fleischer

GAWEL, ANTONI

2

POL.

G

P

✓ Gypsum deposits in southern Poland. Antoni Gawel. *Cement-Wapno-Gips* 11(20), 117-22(1955). The origin of gypsum deposits around Nida, Busko, Łopuszka, Mielec, Skorocice, and Carpathian mountains in southern Poland are described. In the area of sub-Carpathian Miocene, greenish sandy loams in a thickness of approx. 50 m. were deposited. The shallow lagoons (formed from the receding sea) became concd. (up to 6% NaCl) so that gypsum started to crystallize. Its crystals a few cm. long cemented sand which was being deposited at the same time. The deposition of gypsum stopped when the concn. of water reached 23.5% NaCl. Afterwards loams without gypsum deposited again, probably because of the dilu. of the lagoon water with fresh sea water. It is also possible that the concn. of the lagoon water, instead of being dild., was further concd. above 23.5% NaCl; such a concd. soln. of NaCl dissolved gypsum from the deposits. A deposit of NaCl followed. However, where NaCl was not deposited, rich deposits of anhydrite, as in the region around Mielec, or gypsum, as in Łopuszka, were laid. Later the receding sea left lagoons which on evapg. to 6% NaCl started to deposit gypsum. However, the lagoons were continuously dild. by fresh sea water, so that the deposition of gypsum lasted geologically very long. This enabled the crystals of gypsum to grow upwards and reach even 3 m. in height, as in the region of Nida. Some of the gypsum deposits underwent a secondary recrystn., as in the region of Busko and in the region of Łopuszka. In the latter one the secondary recrystn. was—

(OVER)

greatly intensified by the tectonic deformations which caused crevices in gypsum layers. The crevices were later on filled with fresh gypsum. The fresh part of the crystals are either fully transparent or yellow-brownish. They do not contain any traces of loam as in the main layers. The color and luminescence of these fresh crystals indicate the presence of traces of bituminous substances which must have circulated in the crevices at a later phase. Gypsum deposits in the region of Skorsice contain underground caverns, formed by dissolving part of the gypsum layer by water.

F. J. Hendel

GAWEL, A.

"Stanislaw Staszic (1755-1826)."

p. 369 (Rocznik) Vol. 25, no. 4, 1955 (published 1957)
Krakow, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

GAWEL, ANTONI

27

Some improvements in silicate analysis. Antoni Gawel (Akad. Górniczo-Hutnicza, Krakow). *Zeszyty Nauk. Akad. Górniczo-Hutniczej* No. 9, *Geol.* No. 1, 69–76(1956).— Following an unpublished work of Z. Weyberg (1905), all simultaneously pptd. oxides are melted in a Pt or porcelain crucible with an excess of $K_2S_2O_7$, heated, cooled, and dissolved in H_2O. SiO_2 is filtered off. Drying and salting out of SiO_2 ought to be carried out at temps. below 108–15° in order to prevent formation of oxychlorides of Mg and Ca.
J. Stecki

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